

WATEX CMS WATER SOFTENERS TECHNICAL DATA

Technical parameters	Unit	Model				
		CMS 8	CMS 9	CMS 10	CMS 12	CMS 13
Rated flow rate* Qnom	m³/h	0.4	0.6	1.0	1.4	1.8
Service flow rate** Qmax	m³/h	0.6	1.0	1.6	2.2	2.8
Maximum flow rate	m³/h	3.0	3.0	3.0	3.0	3.0
Treated-water capacity between regenerations	L	2300	3800	6000	8300	10600
Design raw-water quality	Iron - 0.2 mg/L; hardness - 6.0 meq/L					
Water per regeneration***	L	70	100	150	200	250
Salt per regeneration	kg	2.3	3.8	6.0	8.3	10.5
Minimum backwash flow rate	m³/h	0.26	0.33	0.41	0.58	0.68
Pressure vessel diameter	in	8	9	10	12	13
	m	0.20	0.24	0.25	0.30	0.33
Pressure vessel volume	L	25	32	64	85	110
Filter-media volume	L	15	25	40	55	70
Overall dimensions						
Length (L)	m	0.53	0.56	0.59	0.64	0.84
Width (W)	m	0.20	0.24	0.25	0.30	0.33
Height (H)	m	1.08	1.41	1.57	1.52	1.57
Connections: inlet/outlet/drain	in	1"/1"/1"	1"/1"/1"	1"/1"/1"	1"/1"/1"	1"/1"/1"
Clack control valve		CI 1"	CI 1"	CI 1"	CI 1"	CI 1"
Treatment capability		Hardness, iron, ammonium, turbidity				
Pressure-vessel material		FRP (fibreglass-reinforced plastic)				
Filter media		Ion-exchange resin Resinex KW-8; quartz sand 1–3 mm and 3–5 mm				
Operating pressure	bar	2–6				
Power supply		220 V, 50 Hz, single phase				
Power consumption	W	3 W				

* Filtration rate 25 BV/h
 ** Filtration rate 40 BV/h
 *** Quantity may double if raw-water quality changes



WATEX CMS WATER SOFTENERS DESCRIPTION

WATEX CMS series units are water softeners designed for households and small manufacturing facilities. In addition to hardness-forming salts, they reduce ammonium and iron. Sodium chloride (NaCl salt tablets) is used to regenerate the ion-exchange resin. Regeneration wastewater may be discharged to a biological wastewater treatment plant.

A WATEX CMS system comprises a pressure vessel, a control valve and a brine tank. The vessel contains cation-exchange resin that reduces hardness and ammonium and removes iron. The control valve regenerates the unit automatically. The brine tank supplies sodium chloride for resin regeneration. Treated-water capacity between regenerations depends on resin quantity and raw-water quality.

WATEX CMS units use a metered Clack WS1CI control valve; the larger models may use a WS1.25CI valve. Regeneration starts after the programmed volume of water has been treated, helping to reduce rinse-water and salt consumption. An optional bypass valve allows the unit to be isolated for maintenance. Programmed settings are retained during a power failure.

Regeneration time, frequency, salt dosage and other parameters can be adjusted to suit operating requirements. On compatible control valves, outlet-water hardness can also be adjusted.

The unit also removes iron, provided dissolved iron does not exceed 2.5–3.0 mg/L.

Although salt tablets are used for regeneration, treated water is suitable for drinking and other normal domestic uses.

The unit requires a 220 V electrical outlet, a drain, and inlet and outlet water connections with at least 2.5 bar supply pressure.

The unit may be installed in a suitably protected damp room or a purpose-built underground chamber that remains accessible for service.